

PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jordi ROSSELL

Serial No.: Not yet assigned
(Continuation of PCT/IB99/00188 filed February 3, 1999)

Filed: (on even date herewith)

For: **DEVICE FOR STERILIZING A CHAMBER**

PRELIMINARY AMENDMENT

BOX FEE AMENDMENT

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Prior to the calculation of fees and the examination of the above-identified application, kindly amend the application as follows:

AMENDMENT

IN THE CLAIMS

PLEASE SUBSTITUTE THE FOLLOWING CLAIMS 1-8 FOR THE PENDING CLAIMS 1-8.

Claim 1. (Amended) Apparatus for cleaning and sterilizing the inside of a chamber, comprising:

a supply of sterilizing liquid for the chamber; and,

means for inducing, within this sterilizing liquid, variations in pressure, amplitude and frequency, and in a gradient of said variations, said means being adapted to generate cavitation within this liquid, said means for inducing variations in pressure comprising a liquid column between said chamber and a switching member with which said chamber can be connected cyclically to a negative pressure, the value of the latter being in relation to said amplitude or respectively to the atmospheric pressure.

EXPRESS MAIL CERTIFICATE

No. EL219227829 US

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service using "Express Mail-Post Office to Addressee" service under 37 CFR 1.10 and addressed to the Commissioner of Patents and Trademarks, Washington, D.C. 20231 on 08-02-2001

K. K. Connel

Claim 2. (Amended) Apparatus according to Claim 1, comprising:

a main conduit connecting said switching member to said treatment chamber, two conduits connecting said main conduit to the atmospheric pressure and to said negative pressure, respectively, said switching member comprising connecting passages between said conduits and said main conduit and being movable between at least two positions, one in which one of said connecting passages brings the main conduit into communication with the atmosphere, the other in which the other of said passages brings the main conduit into communication with said negative pressure, and drive means for displacing said switching member from one position to the other.

Claim 3. (Amended) Apparatus according to Claim 2, wherein said switching member is a rotary member and is integral in kinematic terms with the output shaft of a drive motor.

Claim 4. (Amended) Apparatus according to Claim 1, comprising:

an endpiece intended to connect said treatment chamber on the hone hand to said switching member and on the other hand to said supply of sterilizing liquid.

Claim 5. (Amended) Apparatus according to Claim 4, wherein a second flexible connection element connected in a leaktight and removable manner to said endpiece is arranged between said switching member and said treatment chamber.

Claim 6. (Amended) Apparatus according Claim 1, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 7. (Amended) Apparatus according to one of Claim 1, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 8. (Amended) Apparatus according to Claim 7, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

PLEASE ADD THE FOLLOWING NEW CLAIMS 9-28:

Claim 9. (New) Apparatus according to Claim 2, comprising:
an endpiece intended to connect said treatment chamber on the hone hand to said switching member and on the other hand to said supply of sterilizing liquid.

Claim 10. (New) Apparatus according to Claim 3, comprising:
an endpiece intended to connect said treatment chamber on the hone hand to said switching member and on the other hand to said supply of sterilizing liquid.

Claim 11. (New) Apparatus according to Claim 9, wherein a second flexible connection element connected in a leaktight and removable manner to said endpiece is arranged between said switching member and said treatment chamber.

Claim 12. (New) Apparatus according to Claim 10, wherein a second flexible connection element connected in a leaktight and removable manner to said endpiece is arranged between said switching member and said treatment chamber.

Claim 13. (New) Apparatus according Claim 2, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 14. (New) Apparatus according Claim 3, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 15. (New) Apparatus according Claim 4, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 16. (New) Apparatus according Claim 5, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 17. (New) Apparatus according Claim 9, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 18. (New) Apparatus according Claim 10, wherein said treatment chamber is made up of two parts which are joined to each other in a removable and leaktight manner.

Claim 19. (New) Apparatus according to one of Claim 2, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 20. (New) Apparatus according to one of Claim 3, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 21. (New) Apparatus according to one of Claim 4, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 22. (New) Apparatus according to one of Claim 4, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 23. (New) Apparatus according to one of Claim 10, wherein said chamber is made up of a tubular element, one end of which is open to receive the working part of an endoscope, the inside of said chamber being connected on the one hand to said switching member by way of a joining piece and to said supply of sterilizing liquid via the inlet channel for the biopsy forceps of said endoscope.

Claim 24. (New) Apparatus according to Claim 19, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

Claim 25. (New) Apparatus according to Claim 20, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

Claim 26. Apparatus according to Claim 21, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

Claim 27. (New) Apparatus according to Claim 22, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

Claim 28. (New) Apparatus according to Claim 23, wherein said tubular chamber includes a tubular element which is open at both its ends, each of said ends being sealingly engaged in a respective annular groove in two respective closure members, with interposition of a sealing joint.

IN THE SPECIFICATION

In the specification, please make the following amendments:

On page 1, after line 1, insert the following:

--Cross Reference to Related Applications

This application is a Continuation application of PCT/IB99/00188 filed February 3, 1999, entitled Device for Sterilizing a Chamber. Priority is claimed to the PCT application filing date under 35 U.S.C. § 365.--

On page 1, before line 3 , insert the following:

--Background of the Invention

Field of the Invention--

On page 1, after line 9, insert:

--Description of the Related Art--

On page 4, after line 10 insert the following:

--Brief Summary of the Invention--

On page 4, delete lines 12-20, and insert the following:

--It is an object of the present invention to attain required sudden pressure variations, but directly without the aid of a water-jet pump, that is to say without a positive pressure generator. To this end, the subject of the present invention is a device for cleaning and sterilizing the inside of a chamber.--

On page 5, before line 1, insert the following:

--Brief Description of the Drawings--

On page 5, line 1, kindly "drawing illustrates" and insert --drawings illustrate--

On page 5, line 28, after the ";" insert --and--.

On page 5, before line 33 insert the following:

--Detailed Descriptin of the Invention--

On page 10, line 37, delete "28" and insert --26--.

On page 11, line 2, delete "28" and insert --26--.

After page 13, insert the following for the Abstract, also submitted as a separate page:

Abstract of the Disclosure

A device for cleaning and sterilizing the inside of a chamber, comprising a supply of sterilizing liquid for said chamber and a device for inducing variations in the pressure, amplitude, frequency and the gradient of said variations in the sterilizing liquid, whereby said device is adapted in such a way that cavitation occurs inside the liquid, the device inducing said pressure variations include a liquid column between the chamber and a switching organ, whereby the chamber can be cyclically connected to a depression, whereby the value thereof is related to the amplitude or respectively to the atmospheric pressure.

REMARKS

Claims 1-28 are pending in the above-identified application.

Claims 1-8 have been amended to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention and to eliminate multiple dependency and the fee charged therefor.

Claims 9-28 have been added to more particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

No new matter is believed to have been introduced by this amendment.

Section headings have been added and amendments have been made to the specification as well as the addition of an Abstract of the Disclosure in order to bring the application in conformance with 37 C.F.R. § 1.77.

In accordance with 37 C.F.F. § 1.121, attached hereto are the marked-up versions of the specification showing the changes made and versions of the specification in clear form incorporating the changes made.

CONCLUSION

Favorable action is most earnestly solicited.

If the Examiner has any questions, or wishes to discuss this matter, please contact the undersigned at the telecommunication numbers listed below.

Respectfully submitted,

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Aug. 2, 2001
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